

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1-87. (Canceled)

88. (Withdrawn, Currently amended) An autovaccine against self-proteins in humans or animals comprising:

an analog of a self-protein made by substituting one or more peptide fragments in the self-protein with a corresponding number of immunodominant foreign T-cell epitopes selected from ovalbumin, hen egg lysozyme, tetanus toxoid, or diphtheria toxoid T-cell epitopes,

such that the secondary and tertiary structure of the self-protein is ~~essentially~~ preserved to a large extent; such that said analog induces an autoantibody response as evidenced by antibody binding to the unmodified self-protein; and

a pharmaceutically acceptable adjuvant.

89. (Withdrawn) The autovaccine of claim 88, wherein the pharmaceutically acceptable adjuvant is selected from the group consisting of calcium phosphate, saponin, quil A and biodegradable polymers.

90. (Withdrawn) The autovaccine of claim 88, wherein the pathogenic self- protein analog is present in the form of a fusion protein with an immunologically active cytokine.

91. (Withdrawn) The autovaccine of claim 90, wherein the immunologically active cytokine is selected from the group consisting of GM-CSF and interleukin 2.

92. (Withdrawn) The autovaccine of claim 88, wherein the pathogenic self- protein is TNF α or γ -interferon.

93. (Withdrawn) A method for the treatment of cachexia comprising administration of an effective amount of the autovaccine of claim 92.

94. (Withdrawn) The autovaccine of claim 88, wherein the pathogenic self- protein is IgE.
95. (Withdrawn) A method for the treatment of allergy comprising administration of an effective amount of the autovaccine of claim 94.
96. (Withdrawn) The autovaccine of claim 88, wherein the pathogenic self- protein is $\text{TNF}\alpha$, $\text{TNF}\beta$ or interleukin 1.
97. (Withdrawn) A method for the treatment of chronic inflammatory diseases comprising administration of an effective amount of the autovaccine of claim 88.
98. (Withdrawn) A method for the treatment of rheumatoid arthritis or inflammatory bowel disease comprising administration of an effective amount of the autovaccine of claim 88.
99. (Withdrawn) The autovaccine of claim 88, wherein the pathogenic self- protein is $\text{TNF}\alpha$.
100. (Withdrawn) A method for the treatment of diabetes mellitus comprising administration of an effective amount of the autovaccine of claim 99.
101. (Canceled).
102. (Currently amended) A method for inducing autoantibodies against a self-protein in a subject, said method comprising:
- administering to the subject an analog of the self-protein made by molecular biological means, wherein said analog is made by substituting one or more peptide fragments in the self-protein with a corresponding number of immunodominant foreign T-cell epitopes selected from ovalbumin, hen egg lysozyme, tetanus toxoid, or diphtheria toxoid T-cell epitopes,
- such that the secondary and tertiary structure of the self protein is ~~essentially~~ preserved to a large extent; such that said analog induces an autoantibody response as evidenced by antibody binding to the unmodified self-protein.

103. (Previously presented) The method of claim 102, wherein one or more of the immunodominant foreign T-cell epitopes is an ovalbumin T-cell epitope.

104. (Withdrawn) The method of claim 103, wherein the ovalbumin T-cell epitope comprises SEQ ID NO:2.

105. (Previously presented) The method of claim 103, wherein the ovalbumin T-cell epitope comprises SEQ ID NO:4.

106. (Withdrawn) The method of claim 102, wherein one or more of the immunodominant foreign T-cell epitopes is a hen egg lysozyme T-cell epitope.

107. (Withdrawn) The method of claim 106, wherein the hen egg lysozyme T-cell epitope comprises SEQ ID NO:3.

108. (Withdrawn) The method of claim 106, wherein the hen egg lysozyme T-cell epitope comprises SEQ ID NO:5.

109. (Withdrawn) The method of claim 102, wherein one or more of the immunodominant foreign T-cell epitopes is a tetanus toxoid T-cell epitope.

110. (Withdrawn) The method of claim 102, wherein one or more of the immunodominant foreign T-cell epitopes is a diphtheria toxoid T-cell epitope.

111. (Previously presented) The method of claim 102, wherein the self-protein is TNF α .

112. (Withdrawn) The method of claim 102, wherein the self-protein is ubiquitin.